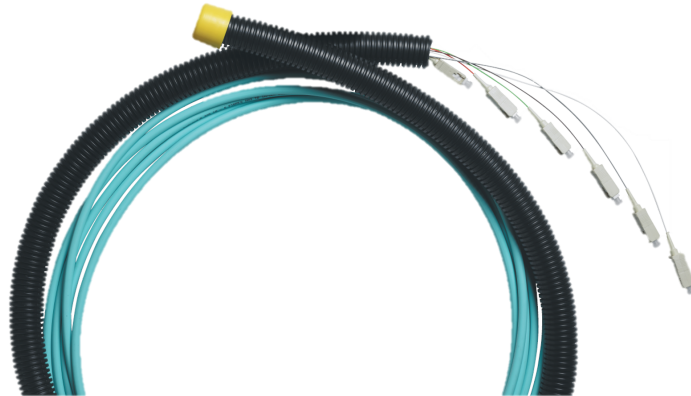


SC/SC and LC/LC cable assemblies Tight-Buffered Core OM3 LSZH



1. DESCRIPTION

Preterminated tight-buffered fibre optic cable with 6 or 12 fibres, assembled with Core simplex LC or SC connectors. Suitable for indoor applications. The ends are designed for connection inside patch panels and LCS³ spliceable fibre optic cassette. The Legrand core, ultra and quantum connectivity performances are far superior than standard. They provide the following benefits for the user :

- Wider range of applications
- More flexibility in the design
- Energy saving on the active (transceivers).

Cat. No.	Connectors	Fibre Type	Num. Fibres	Length (m)	Cat. No.	Connectors	Fibre Type	Num. Fibres	Length (m)	
132001	SC/SC	OM3	6	10	132041	LC/LC	OM3	6	10	
132002				20	132042				20	
132003				30	132043				30	
132004				40	132044				40	
132005				50	132045				50	
132006				60	132046				60	
132007				70	132047				70	
132008				80	132048				80	
132009				90	132049				90	
132010				100	132050				100	
132012			120	132052	120					
132014			140	132054	140					
132016			160	132056	160					
132018			180	132058	180					
132020			200	132060	200					
132021			12		10			132061	12	10
132022					20			132062		20
132023					30			132063		30
132024					40			132064		40
132025					50			132065		50
132026	60	132066			60					
132027	70	132067			70					
132028	80	132068			80					
132029	90	132069			90					
132030	100	132070			100					
132032	120	132072	120							
132034	140	132074	140							
132036	160	132076	160							
132038	180	132078	180							
132040	200	132080	200							

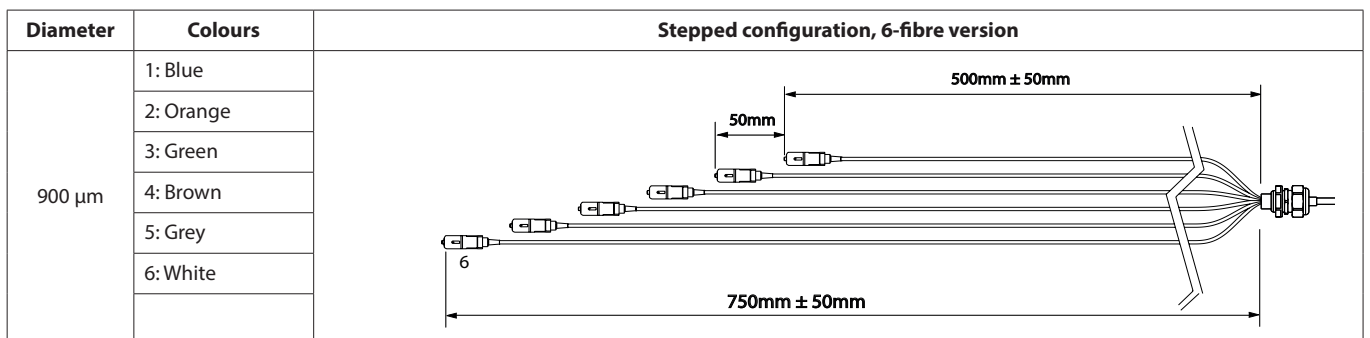
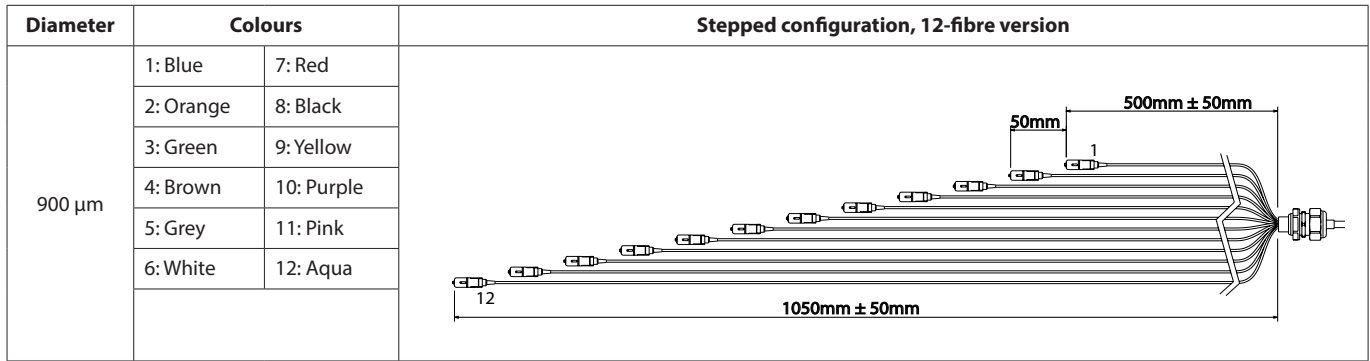
2. PACKAGING

Length ≤ 50 m	Coil
60 ≤ Length ≤ 140m	Ø 400 mm reel
160 ≤ Length ≤ 200m	Ø 520 mm reel

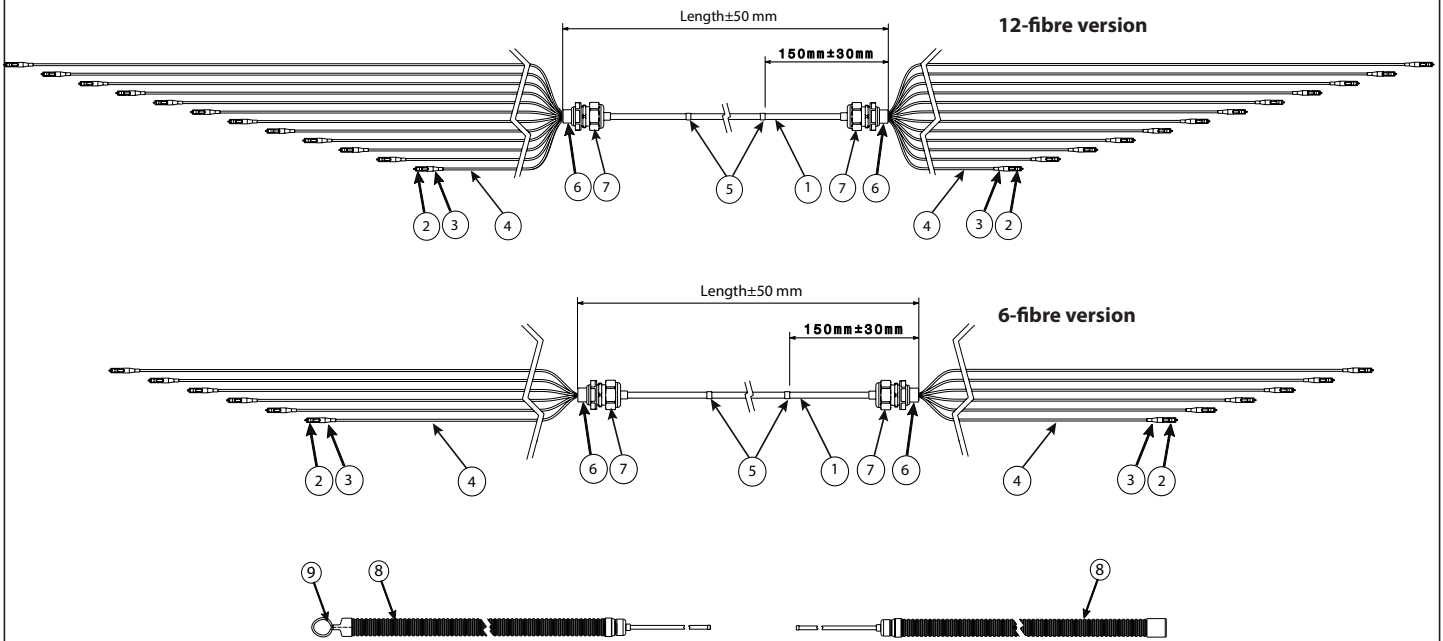
Each product is supplied with a test report stipulating the actual losses on each fibre for the entire link (tested according to IEC 61300-3-4 Method C).

SC/SC and LC/LC cable assemblies Tight-Buffered Core OM3 LSZH

3. FURCATION TUBING



4. ILLUSTRATION



Protective tube

A protective tube protects the pigtails during transport and installation as the tubing offers excellent crush resistance. The outer diameter is 25 mm.

1	Tight-buffered cable	4	900 µm coating	7	PG9 cable gland
2	LC (or SC) connectors on both sides	5	Serial number label	8	25 mm diameter protective tube
3	Connector sleeve	6	Cable holder	9	Pulling rope

SC/SC and LC/LC cable assemblies Tight-Buffered Core OM3 LSZH

5. 900 µm CORE SIMPLEX LC OR SC MULTIMODE CONNECTOR

5.1 Construction

Connector type		LC
Type of fibre		Multimode
Configuration		Simplex
Ferrule	Material	Ceramic-zirconium
	Concentricity	≤ 2 µm
Polish		PC
Connector colour		Beige
Sleeve	Colour	White
	Size	900 µm



Connector type		SC
Type of fibre		Multimode
Configuration		Simplex
Ferrule	Material	Ceramic-zirconium
	Concentricity	≤ 2 µm
Polish		PC
Connector colour		Beige
Sleeve	Colour	Beige
	Size	900 µm



5.2 Technical characteristics

Mechanical properties	Criteria with attenuation characteristic <0.2 dB	Standard
Coupling durability	500 operations	IEC 61300-2-2
Vibration	10-55 Hz, 0.75 amplitude	IEC 61300-2-1
Dropping	1.5 m drop height, 5 drops	IEC 61300-2-12
Operating temperature	-25°C to +70°C, 12 cycles	IEC 61300-2-22
Cold	-25°C for 96 hours	IEC 61300-2-17
Dry heat	+70°C for 96 hours	IEC 61300-2-18

5.3 Optical performance

IL Max/Master	0.25 dB	IEC 61300-3-4
Typ. IL/Master	0.10 dB	IEC 61300-3-4
IL Max/Random *	0.30 dB	IEC 61300-3-34
Typ. IL / Random *	0.15 dB	IEC 61300-3-34
Return Loss	> 35dB	IEC 61300-3-6

* Performance is guaranteed only with other components of the same Legrand range (Core, Ultra and Quantum). Mixing ranges or use of components of other brand may lead to a different performance of the system. The uncertainty value for field measurement with LSPM testing using a reference cord defined in ISO/IEC 14763-3 applies to field testing with proposed Legrand testing cords. Refer to the Fiber Optic Testing Guide for Legrand Solutions.

5.4 Production quality control

- 3D endface geometry (interferometry): sampling quality control
- Optical performance: 100% factory tested.

5.5 Standards

LC	SC
IEC 61754-20 TIA_EIA 604-10-B	IEC 61754-4-1 IEC 60874-14-1
Compliance with RoHS and REACH	

SC/SC and LC/LC cable assemblies Tight-Buffered Core OM3 LSZH

6. CABLE

6.1 Standards

EN 187 000
IEC 60794-2
IEC 60794-2-20
ISO 11801
EN 50173-1

6.2 Construction

Tight-buffered fibre	6 or 12 buffered fibres, 900 µm ±50 µm
Strength member	Glass yarns
Waterproof	Inflatable contact and cuff
Sheath	Halogen-free, flame-retardant, UV-resistant Colour: Aqua RAL 6027

6.3 Fire resistance

IEC 60332-1-2	Test for vertical propagation for a single insulated wire or cable
IEC 60332-3-24	Vertical flame spread of vertically-mounted bunched wires or cables
IEC 60754-1	Halogen-free
IEC 60754-2	Acid-free
IEC 61034	Low smoke
EN 50399	Class Dca s2, d2, a1 (cable marking); also compliant with class Eca

6.4 Physical properties - IEC 60974-1-21/22

Permanent tensile strength	E 11	500 N
Short-term tensile strength (a few days)	E 11	1000 N
Maximum load during installation (a few hours)	-	1500 N
Impact	E4	20 J
Crushing (compressive strength)	E3	2000 N/100 mm
Twisting	E7	5 cycles ±1 turn
Minimum bend radius of tight-buffered fibres	G1	7.5 mm
Temperature range	F1	Operation and installation: -20°C to +60°C Storage: -40°C to +70°C

Number of fibres	Combustion heat		Nominal diameter	Nominal cable weight	Minimum bend radius Long/short-term
	845 MJ/km	0.23 kWh/m			
6	845 MJ/km	0.23 kWh/m	6.5 mm	36 kg/km	100/50 mm
12	1180 MJ/km	0.33 kWh/m	7.5 mm	43 kg/km	130/75 mm

6.5 Cable marking

- Legrand
- Cat. No.
- Description
- Euroclass: Dca s2, d2, a1
- Date code
- Batch number

SC/SC and LC/LC cable assemblies Tight-Buffered Core OM3 LSZH

7. FIBRES

7.1 Standards

IEC 60793-2-10 category A1a.2;
EN 60793-2-10: type A1a.2
Recommendation UIT G.651
ANSI/TIA-492 AAAC

EN 50173: category OM3
ISO/IEC 11801: category OM3
IEEE 802.3, including modification 802.3ae

7.2 Attenuation (of cable with fibres) - IEC 60793-1-40

Maximum cable value at 850 nm	≤ 3.0 dB/km
Maximum cable value at 1300 nm	≤ 1.0 dB/km
Maximum fibre value (for reference purposes only) at 850 nm	≤ 2.5 dB/km
Maximum fibre value (for reference purposes only) at 1300 nm	≤ 0.8 dB/km
Inhomogeneity of OTDR trace between two fibres 1000 metres long	Max. 0.1 dB/km

Bending loss of fibres R = 7.5 mm	≤ 0.2 dB (850 nm)/≤ 0.5 dB (1300 nm)
Bending loss of fibres R = 15 mm	≤ 0.1 dB (850 nm)/≤ 0.3 dB (1300 nm)

7.3 Bandwidth - IEC 60793-1-41

OFL value at 850 nm	≥ 1500 MHz·km
OFL value at 1300 nm	≥ 500 MHz·km
Effective modal bandwidth (EMB) achieved by means of a differential mode delay (DMD), as stipulated in IEC 60793-1-49	≥ 2000 MHz·km
Grouped refractive index at 850 nm	1.482
Grouped refractive index at 1300 nm	1.477

7.4 Properties of fibres in accordance with IEC standards - IEC 60793-1

Attribute	Measurement method	Units	Limits
Core diameter	IEC/EN 60793-1-20	µm	50 ±2.0
Optical cladding diameter	IEC/EN 60793-1-20	µm	125 ±1.0
Non-circularity of optical cladding	IEC/EN 60793-1-20	%	≤ 0.7
Non-circularity of core	IEC/EN 60793-1-20	%	≤ 5
Core/cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1.5
Primary coating (clear) diameter	IEC/EN 60793-1-21	µm	242 ±5
Primary coating (coloured) diameter	IEC/EN 60793-1-21	µm	250 ±15
Non-circularity of primary coating	IEC/EN 60793-1-21	%	≤ 5
Primary coating/optical cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 6
Voltage test level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈1%)
Typical average breaking strength	IEC/EN 60793-1-32	N	1.7
Breaking strength (maximum)	IEC/EN 60793-1-32	N	1.3 ≤ F _{breaking max} ≤ 8.9
Numerical aperture	IEC/EN 60793-1-43	N	0,200 ± 0,015